significant limitations and potential biases, concluded that relatively brief preoperative abstinence from smoking (less than 8 weeks) does not increase pulmonary risk compared with continued smoking. Indeed, we are not aware of any individual study that has found a statistically significant increase in pulmonary complications with brief preoperative abstinence, including the two initial studies by Warner et al. that were interpreted by some authors as raising concerns. The conjectured mechanism responsible for increased risk is a transient increase in cough and sputum production after smoking cessation. However, there is no evidence that cough and sputum production actually increase after smoking cessation, either in an ambulatory population or specifically in anesthetized patients. It does seem clear that more prolonged abstinence from smoking is necessary to reduce the risk of pulmonary morbidity because it takes several weeks for the lungs to recover from the effects of smoking.

Thus, although more data would be welcome, we do not believe that there is any evidence to support the possibility that short-term smoking cessation increases pulmonary complications. It is very likely that the longer the duration of abstinence the better in terms of reducing risk of pulmonary and other complications. However, given the power of the teachable moment and the long-term benefits to health, anesthesiologists and others should seize any opportunity at any time to help their patients quit smoking, without fearing that brief preoperative abstinence could worsen outcome. The American Society of Anesthesiologists provides several tools to do so.*

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References


In Reply:
We want to thank Drs. Warner and Shi for the detailed letter in response to our editorial. We were satisfied to see that we have similar opinions regarding many aspects of the smoking and smoking cessation. Furthermore, in our editorial we cited extensively Dr. Warner’s studies in this field.

However, we are surprised that Drs. Warner and Shi interpreted our message as a warning against smoking cessation shortly before surgery. Our goal was to demonstrate that perioperative smoking cessation is a complex problem requiring more research to guide clinical practice.

We support Drs. Warner and Shi in their advocacy of smoking cessation at any stage of a patient’s life, including the perioperative period. However, we could not ignore concerns regarding potential side effects associated with abrupt smoking cessation and their possible interference with the perioperative course. We used our editorial as an opportunity to highlight controversial areas in perioperative smoking cessation and call for more high-quality research to enhance our knowledge in this very important perioperative field.

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Reference

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Risk of Latex Allergy from Pharmaceutical Vial Closures

To the Editor:
We read with keen interest the educational review by Drs. Sampathi and Lerman on perioperative latex allergy in chil-
We concur with their conclusion that the risk of anaphylaxis from pharmaceutical vial closures is small. However, we offer our comments to their excellent discussion.

Most pharmaceutical vial closures do not contain natural rubber latex. A recent attempt to quantify the prevalence of natural rubber latex in stoppers determined that 78% of pharmaceutical products marketed in the United States contain no latex. Therefore, only a minority of pharmaceutical products place patients at risk for latex allergic reactions.

The authors are correct in stating that the anaphylaxis in children that occurs immediately after intravenous administration of medication from multidose vials is rare. However, we would be reluctant to accept this as reliable evidence of safety for the subset of pharmaceutical products with natural rubber latex stoppers. Attempts to attribute causes of episodes of anaphylaxis based on the temporal relationship to an event or drug administration are perilously unreliable. In one study, anesthesiologists were only able to correctly identify the culprit allergen(s) causing intraoperative anaphylaxis for 7% of episodes; latex was among the most frequently overlooked allergens. Delayed reaction to an allergen may obscure the relationship between cause and effect in the clinical setting.

There are many case reports of allergic reactions caused by latex in multidose vial stoppers used by adults, but very few reports where both the allergen and its source were definitively identified. There are fewer reports involving children. A recurring erythematous rash related to daily administration of total parenteral nutrition from a vial with a natural rubber latex stopper was reported in one infant, and this reaction was avoided by removing the stopper. Although maternal latex allergy was present a radioallergosorbent test on the infant was negative, making latex allergy strongly suspected but not confirmed.

Although we wholeheartedly support the conclusion that the risk of latex allergy from medication vials is very small, we also believe it is important to emphasize that the risk is not zero. Pharmaceutical vials remain a potential source of latex exposure in many otherwise latex-free operating rooms. A high degree of suspicion for latex allergy is necessary for any episode of intraoperative anaphylaxis, and pharmaceutical vials still need to be considered as a potential source for latex allergens.

References


In Reply:

I thank Drs. Heitz and Bader for their comments on the risk of allergic reactions to latex closures in multidose vials. Although latex closures have been tenuously associated with several minor allergic reactions in latex allergic patients, there has never been a report of anaphylaxis triggered by latex vial closures, which was the subject of our review. The authors are reluctant to accept our thesis that concern for latex closure-induced anaphylaxis is unwarranted, although the Food and Drug Administration found insufficient evidence that latex vial closures present a significant risk to patients with latex allergy to warrant banning their use. Positive intradermal testing has been reported in patients with latex allergy who received albumin from unopened multidose vials with latex closures, but enigmatically, a positive response was also reported in several patients with latex allergy who received albumin from vials that contained nonlatex closures. The latter casts doubt on the very basis for intradermal testing for latex.

To provide a rational strategy to minimize latex exposure in patients who have latex allergy, Hamilton et al. advocated eradicating latex from all vial closures. Until that strategy has been implemented, they recommend that we follow the “single-stick observation rule.” This rule assumes that all multidose vials contain latex and limits the number of punctures per vial to one. Patients who receive medication from such vials must be observed for signs of an allergic reaction for a period of time that is determined by the route of drug administration. Alternately, anesthesiologists can identify which multidose vials in their hospital contain latex closures by either requesting that their pharmacy identify those multidose vials that contain latex closures (however, a $500 fee per institution is required), or by searching individual pharmaceutical websites or pharmaceutical companies directly. In summary, anaphylaxis remains a vanishingly small risk in patients with latex allergy who receive medications from multidose vials.

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